STAT [redacted]

December 12, 1968

Attention: Ed D.

Subject: Control #02228 - Status Report for Period Ending November 30, 1968

Gentlemen:

During this report period the following tasks have been performed.

STAT 1. The [redacted] continued its efforts to obtain a written price and delivery quotation from [redacted] STAT for one High Power Stereo Comparator Head manufactured in accordance with the specification submitted October 2, 1968. During a telephone conversation in the early portion of this report period, [redacted] STAT notified the STAT [redacted] that they were not certain they could satisfy the resolution requirement of the specification. Also, their ability to maintain superimposition of the reticle dots during adjustment of the interpupillary distance setting was doubtful. The latter they felt could, however, be provided at an additional cost of [redacted] STAT STAT [redacted] more than that amount originally quoted to the [redacted] STAT STAT [redacted] during the contract negotiation period. Many telephone calls STAT were made to [redacted] during this report period by the customer's technical representative and the [redacted] to determine STAT if perhaps these problems could be resolved without the need for an increase in price. As a result of these telephone calls, the customer's technical representative agreed to accept [redacted] maximum STAT effort of 1000 line pairs per millimeter resolution in lieu of the 1200 line pairs requested in the specification. Further, [redacted] STAT STAT of [redacted] stated during a telephone conversation on November 18, 1968, that his company had reconsidered and now felt that the reticle dots could be aligned to eliminate parallax during the interpupillary distance setting adjustment. A letter mailed to [redacted] on November 22, STAT 1968, amended the original specification dated October 1, 1968, to accept the 1000 line pairs per millimeter as a minimum resolution requirement and specify decimal values within which the reticles must be aligned to be acceptable. The reticle alignment specifications were supplied by STAT the technical representative.

[redacted]

It is not expected that these amendments will increase the price of the High Power Stereo Comparator Head.

STAT [redacted] presently has all the information they require and a written price and delivery quotation is expected to be received from them early in the month of December.

2. The technical representative visited the [redacted] on STAT November 6 and 7. Two representatives from the customer's staff STAT and [redacted] joined the technical representative on November 7. As a result of this visitation, the following final decisions were made by the technical representative all of which relate to human engineering design concepts.

a. Knobs for multiposition switches that are located on the Digital Control Panel shall be of the skirted type. The skirts on these knobs are to be notched such that the number indicating the switch position will show through the notch. Those numbers associated with other switch positions will be concealed by the remaining portion of the knob skirt. Each knob will be engraved with a number so the switch to which it is attached may be easily identified by the operator.

b. Push buttons located on the Digital Control Panel shall be illuminated when in the ON position.

c. The two knobs utilized to set the light intensity and field stop associated with the illumination for each side of the stereo viewing system shall be mounted on concentric shafts located on the top surface of the instrument console. The field stop knobs will be engraved 1.3, 3, 6, and 10 in accordance with the powers of the objective lenses. Optimum resolution of the viewing system is obtained when the field stop knobs are positioned so the number which matches the power of the objective lens selected for use is aligned with a fiducial mark.

d. Both arrays of general field illumination lamps located beneath the stage assemblies shall be controlled by a single switch. This switch will not be located in the central area of the top surface of the instrument console, but rather at some remote position to provide a maximum area for an operator to rest his forearm.

e. The upper pressure platen on each film stage will be mounted on flexure springs which serve as hinges. Large film chips may be loaded by lifting the front edge of the pressure platen and sliding the chip into position. To facilitate the placement of small film chips on the film stage, the flexure spring assembly shall be designed so it may be easily removed from the upper pressure platen. When used in this manner, provision will be made to hold the upper pressure platen in position with four spring fingers. These fingers will be supplied as part of the film stage assembly.

f. A shelf will be mounted on the electrical component rack to serve as a writing surface. This shelf will be notched so the rack may be positioned as close as possible to the corner of the instrument console. Such an arrangement will minimize the distance between an operator and the Digital Control Panel.

g. The gear ratio for the rotary table motion was finalized as a result of actual tests in which members of the customer's staff precisely aligned small images on the optical axis of a 200X magnification viewing system. The tests were conducted on a [redacted] STAT Type 1140 Microdensitometer and duplicated the alignment requirements that will finally be encountered in the customer's laboratory.

3. Design layouts for the following assemblies have been completed to a point which makes it possible to start detail machining drawings of the individual components associated with each.

   a. X and Y coordinate stages

   b. X and Y coordinate precision lead screw and bearing assemblies

   c. Rear section of the overarm

   d. Comparator base

   e. X and Y coordinate motor drive assembly

   f. 360° rotary table for the cut film stages.

4. Patterns and core boxes as required for the following items were received from the pattern maker, checked for dimensional accuracy and sent to the foundry for metal castings.

   a. X and Y coordinate stages

b. Comparator base

c. Rotary table for film stage

d. Nut for X and Y coordinate precision lead screws

e. Bearing blocks for mounting the X and Y coordinate precision lead screws

f. Rear section of the overarm

5. Castings for the following components were received from the foundry during this report period.

a. Comparator base

b. Y coordinate stages

c. Rotary tables for the cut film stages

Castings for all remaining components are expected to arrive during the December report period.

It is estimated that 21% of the work on the twin stage comparator contract has been completed as of this report period.

During the December report period, the [redacted] STAT plans to do the following work.

STAT 1. Place an order with [redacted] for one High Power Stereo Comparator Head to be manufactured in accordance with the [redacted] STAT specification dated October 1, 1968, and amendment #1 and #2 as specified in letters dated November 22, 1968, and November 25, 1968. Copies of the specification and amendments have been mailed to the customer's technical representative for inclusion in his job record file.

2. Continue work on the detail machining drawings for those assemblies listed in paragraph #3 of the work accomplished portion of this status report.

3. Obtain castings from the foundry for all patterns submitted during the November report period. A list of these patterns may be found in paragraph #4 of the work accomplished portion of this report.

4. The technical representative is scheduled to visit the [redacted] STAT
STAT [redacted] on December 18, and 19, to review progress on the twin stage comparator contract.

During the December report period the [redacted] STAT plans to decrease the number of engineering man hours originally scheduled for the twin stage comparator contract. The new work schedule has been planned, however, so the design and manufacture of the twin stage comparator will have been completed before the Stereo Comparator Head is received from
STAT [redacted] and will in no way prevent the instrument from being delivered at the earliest possible date. This decision was anticipated several months ago when it became apparent that the Stereo Comparator Head could not be
STAT obtained from [redacted] prior to the contract delivery date and that it would still require several months additional time to modify it for use on the twin stage comparator.

A written quotation is now expected from [redacted] STAT early in December. When the delivery date for the stereo comparator head is known
STAT the [redacted] intends to request an extension of the present contract delivery date. The extension requested will be commensurate with
STAT [redacted] delivery date and the time required to modify the stereo comparator head for inclusion on the twin stage comparator. In the event the comparator is completed and ready for shipment prior to the date specified in any extension, the customer would be immediately notified that an earlier delivery was possible. The subject matter contained in this paragraph has been previously discussed with the technical representative during
STAT his visit to the [redacted] on September 26, and so noted in that month's status report.

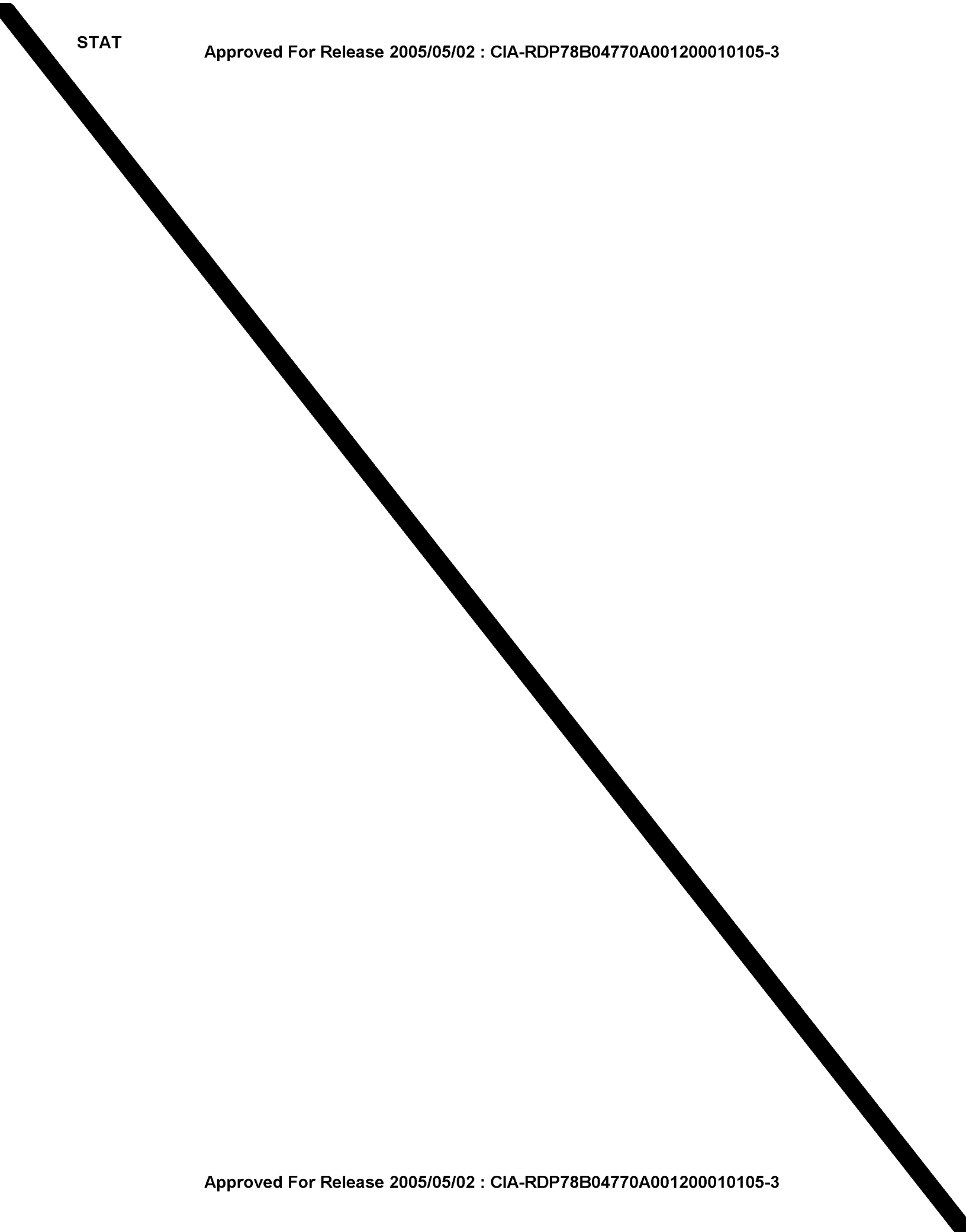
A Status of Funds statement will be found on the following page.

Very truly yours,

[redacted] STAT

Asst. Manager, Engineering

HBB:pc



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